



DEPARTMENT OF DEFENSE
UNITED STATES SPACE COMMAND
150 Vandenberg Street, Suite 1105
Peterson SFB, CO 80914

17 April 2025

MEMORANDUM FOR TO WHOM IT CONCERNS

FROM: HQ USSPACECOM/J8 CAPABILITY AND RESOURCE INTEGRATION

SUBJECT: Unclassified Science & Technology (S&T) Priority List (STPL)

The J813 team reviewed the Commander's proposed FY27 Integrated Priority List (IPL). The intent of the review and subsequent analysis was to match operational/mission gaps with S&T efforts that may advance solutions to address identified gaps. The Science & Technology Priority List (STPL) was developed based on a combination of IPL rank and the known and estimated technical readiness levels (TRL) of potential solutions.

The USSC FY27 STPL categorized by area is as follows:

- Spacecraft/On-Orbit
 - Develop technologies that enable order of magnitude improvement in on-orbit mobility (e.g. novel propulsion systems, new fuels, maneuver optimization, etc.)
 - Develop technologies that enable on-orbit capability enhancement (e.g. increased mission life, modular/reconfigurable hardware/software, etc.)
 - Develop sensors and/or novel technologies for on-orbit radiation detection
- Cis-Lunar
 - Develop sensors and/or algorithms that enable SDA of (and from) cis-lunar space
- C2
 - Develop quantum technologies that secure data links and C2 networks
- Enterprise
 - Develop advanced materials for radiation hardening at the component and sub-system level (e.g. chips and containers)

A more detailed STPL is available at higher classification levels.

My point of contact regarding this endorsement is Mr. Nikolai Melnikow at 719-552-7378 or nikolai.melnikow@usspacecom.mil.

THOMAS A. LOCKHART
SES, DAF
Director